

File 350:Derwent WPIX 1963-1990/UD,UM &UP=200067  
(c) 2000 Derwent Info Ltd  
File 347:JAPIO Oct 1976-2000/Jul(UPDATED 001114)  
(c) 2000 JPO & JAPIO  
File 344:Chinese Patents ABS Apr 1985-2000/Dec  
(c) 2000 European Patent Office

09/367,327

STIC/EIC Search: 1/4/2001

Set	Items	Description
S1	4392476	PLURAL? OR MULTI OR MULTIPLE OR SECOND/FW OR DUAL OR REDUN- DANT OR TWO OR TWIN OR FRONT()END OR FRONTEND OR PARALLEL OR - SECOND(2N)CONNECT?(2N)FIRST
S2	503718	SERVER? ? OR COMPUTER? ?
S3	20367	S1(5N)S2
S4	1283206	QUERY OR QUERIES OR ENQUIR? OR INQUIR? OR SEARCH? OR RETRI- EV? OR REQUEST? OR INPUT
S5	625085	ANALY? OR EVALUAT? OR MONITOR? OR AUDIT?/?FW OR AUDITING
S6	24323	S4(5N)S5
S7	132403	SUBDATA OR (SUB OR SUBORDINAT? OR SECONDARY OR SECTION? OR SEGMENT? OR PART/FW OR SPECIFIC OR SELECTED OR ALPHANUMERIC OR NUMERIC) (3N) (DATA OR QUERY OR QUERIES)
S8	132483	S7 OR ABSTRACT()DATA()TYPE? OR ADT(NOT 5N) (ASYNCHRON? OR T- RANSFER)
S9	2757	(RELATION? OR PARALLEL) (2W) (DATABASE? OR DATA() (BASE OR BA- SES OR BANK) OR DATABANK? OR FILE/FW OR FILES OR DBMS) OR RDB- MS OR LINK??? (3N) (FILE OR FILES OR DATABASE? OR DATA()BASE?)
S10	38612	(IDENTIFIER? OR INDEX?? OR ADDRESS? OR POSITIONAL OR LOCAT- ION? OR DICTIONARY) (3N) (FIELD? ? OR INFORMATION OR TAG? ?/FW - OR TAGG???)
S11	1	S3 AND S6 AND S8 AND S9 AND S10
S12	1	S3 AND S6 AND S8 AND (S9 OR S10)
S13	2	S3 AND S8 AND S9 AND (S6 OR S10)
S14	1	S13 NOT S11
S15	29961	S1(10N)S2
S16	37254	S4(10N)S5
S17	2	S15 AND S9 AND S8 AND (S10 OR S16)
S18	25	S15 AND S9 AND (S8 OR S10 OR S16)
S19	23	S18 NOT S17
S20	4	AU=(HARA N? AND IWATA M? AND NAKANO Y? AND TSUCHIDA M?)
S21	2	S20 NOT (S14 OR S11 OR S19)
S22	9286	AU=(HARA N? OR IWATA M? OR NAKANO Y? OR TSUCHIDA M?)
S23	4	S22 AND S15 AND S9
S24	2	S23 NOT (S11 OR S14 OR S18 OR S20)
S25	5	PARALLEL(1W)PROCESS??? AND S9 AND S8
S26	4	S25 NOT (S11 OR S14 OR S18 OR S20 OR S21 OR S24)

File 348:EUROPEAN PATENTS 1983-2000/DEC W05

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File 349:PCT Fulltext 1983-2000/UB=20001228, UT=20001214

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Set	Items	Description
S1	1015591	PLURAL? OR MULTI OR MULTIPLE OR SECOND/FW OR DUAL OR REDUNDANT OR TWO OR TWIN OR FRONT()END OR FRONTEND OR PARALLEL OR - SECOND(2N)CONNECT?(2N)FIRST
S2	740454	SERVER? ? OR COMPUTER? OR PROCESS??? ?
S3	109771	S1(3N)S2
S4	1195032	QUERY OR QUERIES OR ENQUIR? OR INQUIR? OR SEARCH? OR RETRIEV? OR REQUEST? OR INPUT
S5	433973	ANALY? OR EVALUAT? OR MONITOR? OR AUDIT??/FW OR AUDITING
S6	17649	S4(5N)S5
S7	54978	SUBDATA OR (SUB OR SUBORDINAT? OR SECONDARY OR SECTION? OR SEGMENT? OR PART/FW OR SPECIFIC OR SELECTED OR ALPHANUMERIC OR NUMERIC) (3N) (DATA OR QUERY OR QUERIES)
S8	55544	S7 OR ABSTRACT()DATA()TYPE? OR ADT(NOT 5N) (ASYNCHRON? OR TRANSFER)
S9	4682	(RELATION? OR PARALLEL) (2W) (DATABASE? OR DATA() (BASE OR BASES OR BANK) OR DATABANK? OR FILE/FW OR FILES OR DBMS) OR RDBMS OR LINK??? (3N) (FILE OR FILES OR DATABASE? OR DATA()BASE?)
S10	35731	(IDENTIFIER? OR INDEX?? OR ADDRESS? OR POSITIONAL OR LOCATION? OR DICTIONARY) (3N) (FIELD? ? OR INFORMATION OR TAG? ?/FW - OR TAGG???)
S11	12	S3(S)S6(S)S8(S)S9(S)S10
S12	1	S11 NOT (MACHINING OR TELEPHONE OR PROTEIN? OR POLYPEPTI?)
S13	23	S3(S)S9(S)S8(S) (S10 OR S6)
S14	10	S13 NOT (S11 OR MACHINING OR PROTEIN? ? OR POLYPEPTI?)
S15	0	AU=(IWATA MORIHIRO? AND TSUCHIDA MASASHI? AND NAKANO YUKIO? AND HARA NORIHIRO?)
S16	0	AU=(IWATA M? AND TSUCHIDA M? AND NAKANO Y? AND HARA N?)
S17	448	AU=(IWATA M? OR TSUCHIDA M? OR NAKANO Y? OR HARA N?)
S18	1	S17 AND S3(S)S9

File 2:INSPEC 1969-2000/Dec W3  
(c) 2000 Institution of Electrical Engineers  
File 8:Ei Compendex(R) 1970-2000/Dec W2  
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S1	9001108	PLURAL? OR MULTI OR MULTIPLE OR SECOND/FW OR DUAL OR REDUN- DANT OR TWO OR TWIN OR FRONT()END OR FRONTEND OR PARALLEL OR - SECOND(2N)CONNECT?(2N)FIRST
S2	8586557	SERVER? ? OR COMPUTER? OR PROCESS??? ?
S3	535613	S1(7N)S2
S4	1507697	QUERY OR QUERIES OR ENQUIR? OR INQUIR? OR SEARCH? OR RETRI- EV? OR REQUEST? OR INPUT
S5	12387050	ANALY? OR EVALUAT? OR MONITOR? OR AUDIT??/FW OR AUDITING
S6	83866	S4(5N)S5
S7	119220	SUBDATA OR (SUB OR SUBORDINAT? OR SECONDARY OR SECTION? OR SEGMENT? OR PART/FW OR SPECIFIC OR SELECTED OR ALPHANUMERIC OR NUMERIC)(3N)(DATA OR QUERY OR QUERIES)
S8	129173	S7 OR ABSTRACT()DATA()TYPE? OR ADT(NOT 5N)(ASYNCHRON? OR T- RANSFER)
S9	45643	(RELATION? OR PARALLEL)(2W)(DATABASE? OR DATA() (BASE OR BA- SES OR BANK) OR DATABANK? OR FILE/FW OR FILES OR DBMS) OR RDB- MS OR LINK??? (3N) (FILE OR FILES OR DATABASE? OR DATA()BASE?)
S10	38712	(IDENTIFIER? OR INDEX?? OR ADDRESS? OR POSITIONAL OR LOCAT- ION? OR DICTIONARY)(3N)(FIELD? ? OR INFORMATION OR TAG? ?/FW - OR TAGG???)
S11	0	S3 AND S6 AND S8 AND S9 AND S10
S12	298	S3 AND S9 AND (S8 OR S6 OR S10)
S13	9	S3 AND S9 AND S8 AND (S6 OR S10)
S14	5	RD (unique items)
S15	88	S3 AND S9 AND S8
S16	79	S15 NOT S13
S17	56	S16 NOT PY,CY=1997:2000
S18	49	RD (unique items)
S19	16681	AU=(IWATA, M? OR IWATA M? OR TSUCHIDA, M? OR TSUCHIDA M? OR NAKANO, Y? OR NAKANO Y? OR HARA, N? OR HARA N?)
S20	6	S3 AND S9 AND S19
S21	6	S20 NOT (S13 OR S18)
S22	3	RD (unique items)
?		

File 16:Gale Group PROMT(R) 1990-2001/Jan 03  
 (c) 2001 The Gale Group  
 File 160:Gale Group PROMT(R) 1972-1989  
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 File 148:Gale Group Trade & Industry DB 1976-2001/Jan 03  
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 File 636:Gale Group Newsletter DB(TM) 1987-2001/Jan 03  
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 File 275:Gale Group Computer DB(TM) 1983-2001/Dec 29  
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S1	8699069	PLURAL? OR MULTI OR MULTIPLE OR SECOND/FW OR DUAL OR REDUN- DANT OR TWO OR TWIN OR FRONT()END OR FRONTEND OR PARALLEL OR - SECOND(2N)CONNECT?(2N)FIRST
S2	7776857	SERVER? ? OR COMPUTER? OR PROCESS??? ?
S3	593764	S1(7N)S2
S4	2678625	QUERY OR QUERIES OR ENQUIR? OR INQUIR? OR SEARCH? OR RETRI- EV? OR REQUEST? OR INPUT
S5	5257936	ANALY? OR EVALUAT? OR MONITOR? OR AUDIT?/FW OR AUDITING
S6	70071	S4(5N)S5
S7	138391	SUBDATA OR (SUB OR SUBORDINAT? OR SECONDARY OR SECTION? OR SEGMENT? OR PART/FW OR SPECIFIC OR SELECTED OR ALPHANUMERIC OR NUMERIC)(3N)(DATA OR QUERY OR QUERIES)
S8	143226	S7 OR ABSTRACT()DATA()TYPE? OR ADT(NOT 5N)(ASYNCHRON? OR T- RANSFER)
S9	116946	(RELATION? OR PARALLEL)(2W)(DATABASE? OR DATA() (BASE OR BA- SES OR BANK) OR DATABANK? OR FILE/FW OR FILES OR DBMS) OR RDB- MS OR LINK??? (3N)(FILE OR FILES OR DATABASE? OR DATA()BASE?)
S10	88897	(IDENTIFIER? OR INDEX?? OR ADDRESS? OR POSITIONAL OR LOCAT- ION? OR DICTIONARY)(3N)(FIELD? ? OR INFORMATION OR TAG? ?/FW - OR TAGG???)
S11	0	S3(S)S9(S)S6(S)S8(S)S10
S12	117	S3(S)S9(S)S8
S13	9	S12(S)(S6 OR S10)
S14	7	RD (unique items)
S15	6	S14 NOT PY=1997:2000
S16	6	S15 NOT PD=960828:961231
S17	5	S16 NOT HUMAN()RESOURCES
S18	94	S12 NOT PY=1997:2000
S19	84	S18 NOT PD=960828:961231
S20	76	S19 NOT S13
S21	49	RD (unique items)
S22	22	S21(S)S4
S23	105	AU=(IWATA, M? OR IWATA M? OR TSUCHIDA, M? OR TSUCHIDA M? OR NAKANO, Y? OR NAKANO Y? OR HARA, N? OR HARA N?)
S24	0	S23 AND S3(S)S9
?		

File 15:ABI/Inform(R) 1971-2001/Jan 04  
 (c) 2001 Bell & Howell  
 File 98:General Sci Abs/Full-Text 1984-2000/Nov  
 (c) 2000 The HW Wilson Co.  
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Set	Items	Description
S1	8411757	PLURAL? OR MULTI OR MULTIPLE OR SECOND/FW OR DUAL OR REDUNDANT OR TWO OR TWIN OR FRONT()END OR FRONTEND OR PARALLEL OR - SECOND(2N)CONNECT?(2N)FIRST
S2	4584083	SERVER? ? OR COMPUTER? OR PROCESS??? ?
S3	330331	S1(7N)S2
S4	2502364	QUERY OR QUERIES OR ENQUIR? OR INQUIR? OR SEARCH? OR RETRIEV? OR REQUEST? OR INPUT
S5	3862829	ANALY? OR EVALUAT? OR MONITOR? OR AUDIT?/?FW OR AUDITING
S6	51142	S4(5N)S5
S7	71304	SUBDATA OR (SUB OR SUBORDINAT? OR SECONDARY OR SECTION? OR SEGMENT? OR PART/FW OR SPECIFIC OR SELECTED OR ALPHANUMERIC OR NUMERIC) (3N) (DATA OR QUERY OR QUERIES)
S8	74536	S7 OR ABSTRACT()DATA()TYPE? OR ADT(NOT 5N) (ASYNCHRON? OR TRANSFER)
S9	49644	(RELATION? OR PARALLEL) (2W) (DATABASE? OR DATA() (BASE OR BASES OR BANK) OR DATABANK? OR FILE/FW OR FILES OR DBMS) OR RDBMS OR LINK??? (3N) (FILE OR FILES OR DATABASE? OR DATA()BASE?)
S10	50003	(IDENTIFIER? OR INDEX?? OR ADDRESS? OR POSITIONAL OR LOCATION? OR DICTIONARY) (3N) (FIELD? ? OR INFORMATION OR TAG? ?/FW - OR TAGG???)
S11	0	S3(S)S9(S)S6(S)S8(S)S10
S12	45	S3(S)S9(S)S8
S13	4	S12(S) (S6 OR S10)
S14	4	RD (unique items)
S15	4	S14 NOT PY=1997:2000
S16	41	S12 NOT S15
S17	30	S16 NOT PY=1997:2000
S18	28	S17 NOT PD=960828:961231
S19	25	RD (unique items)
S20	13	S19(S)S4
S21	73	AU=(IWATA, M? OR IWATA M? OR TSUCHIDA, M? OR TSUCHIDA M? OR NAKANO, Y? OR NAKANO Y? OR HARA, N? OR HARA N?)
S22	0	S21 AND S3(S)S9
?		

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**WEST****Generate Collection****Search Results - Record(s) 1 through 2 of 2 returned.**☐ 1. Document ID: NN9411477

L13: Entry 1 of 2

File: TDBD

Nov 1, 1994

DOCUMENT-IDENTIFIER: NN9411477

TITLE: User Interface for a Parallel File System

## TBTX:

Disclosed is a programming interface to a parallel file system. This interface allows application programs to access data stored on multiple disks and to control data layout. Massively parallel computers incorporate hundreds or even thousands of processors. To keep the system balanced, the computing power provided by these processors should be matched by a very large I/O bandwidth. The only way to supply this bandwidth is by using multiple disks. The question is then how to best organize the data on these disks. In uniprocessor file systems, a file is seen as a sequence of data records. But in multiprocessor systems there is no reason to keep the limiting sequential semantics, especially if the data is actually distributed across a number of independent disks and is being used by a number of independent processors. The problem is how to coordinate the accesses from the different processors, so that each gets the data it requires. In particular, it should be possible to partition the file such that distinct processors access disjoint data sets. Moreover, this should be done in a manner that takes advantage of the parallelism among the I/O nodes. The disclosed interface is designed to enable an application programmer to tell the system how to distribute the file data across the disks, and how to access it. The user interface consists of the following sets of functions:

- o File creation functions. These functions allow different parameters of the file to be defined.
- o File access functions. These functions tell the system how to partition the data in the file, and which part is being accessed.
- o Data access functions. These functions perform the actual data access. To implement them, the system utilizes information provided by functions in the previous two groups. The following paragraphs present the main functions in detail. Functions that provide conventional services, such as renaming a file or changing its access permissions, are omitted.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Draw Desc
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☐ 2. Document ID: NN7506174

L13: Entry 2 of 2

File: TDBD

Jun 1, 1975



DOCUMENT-IDENTIFIER: NN7506174  
TITLE: Predecessor Mapper. June 1975.

TBTX:

4p. In an evolving product a continuous stream of changes is applied to the product's parts. In managing such a project, it is mandatory that for any version of a part the changes contained in that version must be determined. This is usually done by determining the chain of predecessor versions on which the subject version is based. - Historically this type of association has usually been done with a chain of pointers which connects the predecessor versions. This requires multiple I/O references to reference the chain, since each element on the chain must be read. In addition, in a decentralized environment involving multiple data bases, processing such a chain can be slow and complex to the point of impossibility if different links are in different data bases. It is also possible to keep a list of predecessor version numbers, but this requires considerable space if the list is long. - This method involves mapping the predecessor history into a segmented logical bit string. Each bit position corresponds to a previous version of the part. A "1" indicates that the corresponding version is in the subject version's base chain. A "0" indicates that the corresponding version is not in the subject version's base chain. Each bit string segment is stored with an associated key field, e.g., as an occurrence in an IMS-like memory. The key fields are simply serial numbers corresponding to the associated segment's position in the logical string. Only segments containing one or more 1's are stored. - The algorithms for referencing the bit string are shown in Figs. 1 and 2 below. Fig. 1 shows the logic for creating a new version's bit string. Usually the segment-level processing is a simple copy operation, since any segments missing in the immediate base's bit String will also be missing in the new version's bit string. The bit-level processing consists of adding a new 1 to the new version's bit string, in a position corresponding to the immediate base version. - Fig. 2 shows the logic for determining the predecessors in a version's base chain. The bit string is expanded into a list of specific version numbers. - In both figures, it is assumed that the key field is named KEY and the field containing the bit string segment is named DATA. The length of each bit string segment (i.e., the length of each DATA field) is N. The subject version number (i.e., the new version in Fig. 1 and the version whose history is being referenced in Fig. 2) is V. If V is divided See original p175. by N, the APL notation Absol. value of V divide N and  $V \mid N$  is used to represent the quotient and remainder, respectively. The first key is 0. Bit positions in DATA are numbered phi thru N-1. A string that had grown to three segments, for example, would look like: See original p175-176. This method has the following advantages. 1. Performance is high as the predecessor history, which is normally kept on disk, can be retrieved with a single I/O reference. 2. Predecessor history referencing is independent of data base decentralization. 3. Assuming that a part version must be in the same data base as its immediate predecessor, i.e., that version creation cannot span data bases, predecessor history generation is also independent of data base decentralization. 4. Storage requirements are relatively small, as versions are represented by a single bit and only segments indicating predecessors need be stored. Varying the value of N allows flexibility in trading off between key field overhead and the ability to drop segments. - In addition, the algorithms can be extended to provide even greater trade-off flexibility. With long-lived parts having a cumbersome number of versions, the predecessor history can be a "recent history" delta, e.g., covering the past two years, on some prior base. In general, only the delta history would be needed. If a full history were required, it could be obtained by concatenating the version lists corresponding to the two histories. This could be extended still further to involve multiple delta histories. - The immediate problem leading to this method was that of DUKE predecessor histories, and it has been described in these terms. The potential scope, however, is much wider. In general, it should be applicable to other cases where it is necessary to define dynamically growing subgroups of a dynamically growing group. These could range from application systems, such as DUKE to control program functions such as lock control.